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Long-term outcome of augmentation mammaplasty in male-to-female transsexuals: a questionnaire survey of 107 patients

R. C. J. Kanhai, J. J. Hage and J. W. Mulder

Department of Plastic and Reconstructive Surgery, Academisch Ziekenhuis Vrije Universiteit, Amsterdam, The Netherlands

SUMMARY. A retrospective survey of long-term postoperative male-to-female transsexual patients has been performed to evaluate how well augmentation mammaplasty addresses their needs. One hundred and seven (65%) out of 164 anonymous questionnaires sent to the patients were evaluated. Average clinical follow-up of these patients was 4.8 years, whereas the average time lapse between mammaplasty and filling out of the questionnaire was 5.5 years (range, 16 months–17 years). The age of the subjects at the time of this survey ranged from 22 to 76 years (average, 41 years). Seventeen of the 107 patients had undergone further augmentation mammaplasty, on average 57 months after the initial mammaplasty. The average size of implanted prostheses was 258 ml (range, 130–450 ml). Eighty patients (75%) indicated satisfaction with the final outcome of the mammaplasty. The median postoperative cup size in this group was B (range of postoperative bra size, 30B–40D). The remaining 27 patients (25%) were unhappy with the results of mammaplasty. The median postoperative cup size in the 18 patients who still felt their breasts to be too small was also B (range of bra size, 30B–48E). The average size of current prostheses in these 18 patients was 261 ml. For a male-to-female transsexual patient to appreciate the outcome of augmentation mammaplasty, the surgeon should tolerate and address this patient's urge for a distinctly feminine breast configuration. © 2000 The British Association of Plastic Surgeons

Keywords: transsexualism, mammaplasty, follow-up, subjective outcome.

Driven by a persistent and unchangeable need to undo the discrepancy between physical reality of the body and gender of the mind, most male-to-female transsexuals seek demasculinisation and feminisation through hormonal and surgical treatment. Augmentation mammaplasty is often performed in cases where hormonal treatment has not resulted in sufficient growth of the breasts.[1,2] This procedure facilitates the adjustment to the female lifestyle and it helps the patient to accept her body. To evaluate how well mammaplasty addresses the needs of these patients, several goals must be addressed.[3] These include: (a) a diagnostic selection process that will allow uniform screening of the many patients with gender dysphoria for those who may not be reasonably helped by gender reassignment operations; (b) high-quality operations that give uniformly good aesthetic and functional results with reasonable cost and risk; and (c) careful follow-up of unselected groups of patients over a 10- to 20-year period.[3] The Amsterdam gender team has treated well over 1400 patients since its inception in 1975 and a reliable diagnostic selection process and favourable cost–benefit ratio for the surgery have been established.[4] Long-term results, however, could only be carefully evaluated after the required period of 10–20 years had passed. We performed an inquiry among these patients to evaluate the long-term subjective outcome of mammaplasty surgery.

Patients and methods

In the 18-year period January 1979 to December 1996, 359 male-to-female transsexuals presented to undergo vaginoplasty in the Academisch Ziekenhuis Vrije Universiteit (AZVU). Working in line with the Standards of Care of the Harry Benjamin International Gender Dysphoria Association, all indications for gender confirming surgery were agreed on by the AZVU gender team.[1,5,6] Of these 359 patients, 201 also underwent augmentation mammaplasty in our clinic. To evaluate how well mammaplasty had addressed their needs, a questionnaire was sent to 184 of these 201 patients. Eight of the remaining 17 patients had died since the operation, and no address was known for eight others. One patient was known to regret having undergone male-to-female sex reassignment and was not approached.

The questionnaires were semi-structured. This means that some questions had fixed answers and the subjects only had to pick the possible answer. Apart from these multiple choice questions, the subjects were asked to answer open questions and to give any comment they felt was necessary. Information was collected anonymously. All subjects were approached by mail twice to encourage them to fill up the questionnaire. One hundred and thirty of the 184 questionnaires were returned. On the envelope of 20 of these 130 it was

indicated that the patient was no longer known at that address. Therefore, 164 questionnaires were regarded to have reached the patients. Three questionnaires were returned without being filled out. The following results were extracted from the 107 remaining questionnaires.

Results

The age of the 107 subjects at the time of their first mammaplasty ranged from 18 to 71 years (average, 35.5 years). The average period of hormone treatment prior to this mammaplasty had been 8.4 years (range, 3–26 years). Mammaplasty had been performed simultaneously with vaginoplasty in 85 patients, whereas an average of 2.7 years (range, 2 months–10 years) lapsed between the procedures in the remaining 22 cases. Seventeen of the 107 patients had undergone further augmentation mammaplasty, on average 57 months after the initial mammaplasty (range, 7 months–11 years). The average size of implanted prostheses was 258 ml (range, 130–450 ml). Average clinical follow-up of these 107 patients was 4.8 years (range, 7 months–13 years), whereas the average time lapse between mammaplasty and filling out of the questionnaire was 5.5 years (range, 16 months–17 years). The age of the subjects at the time of this survey study ranged from 22 to 76 years (average, 41 years).

Eighty patients (75%) were satisfied with the final outcome of their mammaplasty. Twelve of these 80 patients had undergone repeated augmentation mammaplasty. The median preoperative cup size in these 80 patients had been A (range of bra size, 28AA–40A) and their median postoperative cup size was B (range of bra size, 30B–40D).[7] The average size of prostheses implanted in the 68 patients who were happy with the result of the initial mammaplasty was 265 ml.

The remaining 27 patients (25%) were unhappy with the results of mammaplasty. Five of these 27 reported having undergone further augmentation. The reasons for dissatisfaction ranged from the breasts being too big or too small, to pain (Table 1). The median preoperative cup size in the 18 patients who still felt their breasts to be too small had been A (range of bra size, 28AA–36A), whereas their median postoperative cup size was also B (range of bra size, 30B–48E). The average size of current prostheses in these 18 patients was 261 ml.

Table 1 Reasons for being dissatisfied by the outcome of (repeated) mammaplasty in 27 of the 107 patients

Breasts too small	18
Breasts too large	1
Painful breasts	1
Asymmetry of breasts	1
'Unnatural' appearance of breasts	2
Conspicuous inframammary scars	1
Conspicuous edges of implants	1
Removal of implants after 6 operations	1
No reason provided	1

Discussion and conclusions

Oestrogen therapy in male-to-female transsexuals results in increased fat deposition in the breasts and around the waist.[8] The degree of breast development varies and augmentation mammaplasty may be considered whenever hormonal treatment has not resulted in sufficient growth of the breasts. Apart from the 201 patients who underwent breast surgery in our clinic, 40 of 359 patients who had undergone vaginoplasty had the mammaplasty performed elsewhere. Hence, we infer that 67% of our vaginoplasty patients undergo augmentation mammaplasty.

One hundred and seven out of 164 questionnaires (65%) regarded to have reached the patients could be evaluated. Some patients may have changed address since their last visit to our outpatient clinic and the questionnaire may, in fact, not have reached them. Others may not have returned the questionnaire as postoperative transsexuals sometimes feel 'de-transsexualised' and are no longer willing to be reminded of their 'former' life and treatment. Still, our treatment programme aims to keep transsexuals under life-long medical supervision even after sex reassignment surgery.[1]

Four-fifths of the patients in our series underwent combined mammaplasty and vaginoplasty, whereas the remaining patients underwent these procedures separately. For most patients requiring both vaginoplasty and mammaplasty, both procedures are currently performed simultaneously, as less theatre time is being used and medical costs are kept to a minimum.

Previously, we reported that the average size of implanted mammary prostheses nearly doubled from 165 ml in 1979, to 287 ml in 1996.[2] The average size of implanted prostheses in the current group was 258 ml and this relatively large average size may explain the 75% satisfaction rate. Still, the average size of prostheses implanted in the 80 satisfied patients did not statistically differ from that in the 18 patients who indicated that their breasts were still too small. Likewise, the preoperative and postoperative cup and bra sizes were not different in both groups. No less than 17 patients (16%) of this series had undergone repeated augmentation mammaplasty and, for these reasons, we conclude that for the male-to-female transsexual patient to appreciate the outcome of augmentation mammaplasty, the surgeon should tolerate and address this patient's urge towards a distinctly feminine breast configuration.

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The Authors

Robert C. J. Kanhai MD, Junior Resident
J. Joris Hage MD, PhD, Consultant Plastic Surgeon
J. Wiebe Mulder MD, PhD, Professor and Chief

Department of Plastic and Reconstructive Surgery, Academisch Ziekenhuis Vrije Universiteit, P.O. Box 7057, NL-1007 MB Amsterdam, The Netherlands.

Correspondence to Dr J. J. Hage.

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